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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,976	09/26/2001	Shinji Sekiguchi	16869P-026900US	2950

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EXAMINER

MCPHERSON, JOHN A

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

72-4

Office Action Summary

Application No.

09/964,976

Applicant(s)

SEKIGUCHI ET AL.

Examiner

John A. McPherson

Art Unit

1756

-- Th MAILING DATE of this communication appears on th cov r sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 13-21 is/are allowed.
- 6) ☒ Claim(s) 9-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 9 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 63-293532 (JP '532). JP '532 discloses a liquid crystal color display comprising wavelength conversion elements disposed so as to correspond to red, blue and green color filters on a glass substrate, wherein the wavelength conversion elements convert light to a longer wavelength. See the abstract and Figure 1.

2. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-202118 [reference AU of the Information Disclosure Statement filed 9/26/01] (JP '118). JP '118 discloses a color filter comprising a color-converting layer formed on a glass substrate, a color filtering layer consisting of segments formed over the color-converting layer, and a planarizing layer to planarize the color-converting layer and the color filtering layer, wherein the color-converting layer converts a portion of incident light into a light in the range of a specific wavelength, which is longer than the wavelength of the incident light. See paragraphs [0009] to [0011] of the translation, and Figure 1.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-202118 (JP '118) in view of U.S. Patent No. 6,251,548 to Sega et al. (Sega). The disclosure of JP '118 is discussed above in paragraph 2. However, JP '118 does not disclose providing the color filtering layer with an opaque layer having a plurality of openings therethrough (i.e. a light shielding layer or black matrix). Sega teaches providing a light shielding layer on the non-picture element area of a color filter in order to increase image contrast. See the abstract and column 1, lines 19-26. It would have been obvious to one skilled in the requisite art to provide a light shielding layer, as taught by Sega, in the color filter of JP '118 because it is taught that providing a light shielding layer on the non-picture elements area of a color filter increases the contrast of the images displayed.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 63-293532 (JP '532) in view of U.S. Patent No. 6,251,548 to Sega et al. (Sega). The disclosure of JP '532 is discussed above in paragraph 1. However, JP '532 does not disclose providing the color filtering layer with an opaque layer having a plurality of opening therethrough (i.e. a light shielding layer or black matrix). Sega teaches

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providing a light shielding layer on the non-picture element area of a color filter in order to increase image contrast. See the abstract and column 1, lines 19-26. It would have been obvious to one skilled in the requisite art to provide a light shielding layer, as taught by Sega, in the color filter of JP '532 because it is taught that providing a light shielding layer on the non-picture elements area of a color filter increases the contrast of the images displayed.

Pertinent Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,358,652 discloses a fluorescent conversion filter formed by coating with a coating material, followed by patterning with photolithography. The coating material comprises a mixture of an organic fluorescent dye or pigment that absorbs light in the UV to visible region, and a photo-setting or photo-and-thermo-setting resin having a benzophenone photopolymerization initiator.

U.S. Patent Application Publication No. 2002/0011971 discloses a liquid crystal display device comprising color filters, wherein at least one of the color filters contains a color-converting material which converts a part of an incident light of the color filter into a light in a specific wavelength range, and a filter material which passes the light in the specific wavelength range.

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JP 10-255983 discloses a display element comprising a light emitting member and a color converting member disposed in order in a light takeout direction, and a color filter disposed on the light takeout side of the color converting member.

Allowable Subject Matter


6. Claims 1-8 and 12-21 are allowed because in a color filter comprising a transparent substrate, a color filtering layer comprising a plurality of substantially coplanar color filtering segments, and a wavelength converting layer being at least substantially co-extensive with the color filtering layer and having a property of producing emergent light having a first range of wavelengths greater than a predetermined wavelength value in response to receiving a portion of incident light comprising wavelengths less than the predetermined wavelength value, the prior art does not teach or suggest the color filter wherein the wavelength converting layer comprises a single kind of material having the property of producing the emergent light.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (703) 308-2302. The examiner can normally be reached on Monday through Friday, 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (703) 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
8/19/03